

APPENDIX D CONCENTRATED ANIMAL FEEDING OPERATION REGULATIONS

Intent

An adequate supply of healthy livestock, poultry and other animals is essential to the well-being of city and county citizens and the State of South Dakota. However, livestock, poultry, and other animals produce manure which may, where improperly stored, transported, or disposed, negatively affect the County environment. Animal manure must be controlled where it may add to air, surface water, ground water, or land pollution. The following regulations have been adopted to provide protection against pollution caused by manure from domesticated animals. All new and proposed expansions of Concentrated Animal Feeding Operations shall comply with the regulations as outline herein.

It is the intention of the Planning and Zoning Board in the enforcement of this ordinance that when an operator of an existing Concentrated Animal Feeding Operation applies for a permit to expand to another class level, the standards that apply to the expansion will not be applied to existing structures that were built in compliance with accepted industry standards in existence at the time of the construction of such facilities. A special exception can be issued, see Special Exception in the City of Leola Zoning Regulations.

Definitions

Animal Manure: Poultry, livestock, or other animal excreta or mixture of excreta with feed, bedding or other materials.

Animal Unit: See page 4.

Applicant: An individual, a corporation, a group of individuals, partnership, joint venture, owners, or any other business entity having charge or control of one or more concentrated animal feeding operations.

Change in Operation: “Change in operation” means a cumulative expansion of more than 300 animals units, after date , which are confined at an existing unpermitted concentrated animal feeding operation.

Farm Dwelling: Any dwelling owned or occupied by the farm owners, operators, tenants, or seasonal or year-around hired workers.

Non-Farm Dwelling: Any occupied dwelling which is not a farm dwelling.

Permit: A permit required by these regulations unless stated otherwise.

Potential Pollution Hazard: A Concentrated Animal Feeding Operation of 50 to 499 Animal Units may be classified as a Class D Operation by the City Zoning Administrator when a Potential

Pollution Hazard exists. Factors to be considered by the Zoning Administrator in determining a Potential Pollution Hazard include the following:

1. The Concentrated Animal Feeding Operation does not meet the minimum setback and separation distances of these regulations.
2. A Potential Water Pollution Hazard exists due to sitting over a shallow aquifer or drainage which contributes to the waters of the State.

Process Generated Wastewater: Water directly or indirectly used in the operation of an animal feeding operation. The term includes spillage or overflow from water systems; water and manure collected while washing, cleaning or flushing pens, barns, manure pits or other areas; water and manure collected during direct contact swimming, washing or spray cooling of animals; and water used in dust control.

Process Wastewater: “Process wastewater” means any process generated wastewater and any precipitation (rain or snow) that comes into contact with the animals, manure, litter or bedding, feed, or other portions of the animal feeding operation. The term includes runoff from an open lot.

Shall: “Shall” means that the condition is an enforceable requirement of this permit.

Shallow Aquifer: An aquifer vulnerable to contamination because the permeable material making up the aquifer (a) extends to the land surface so percolation water can easily transport contaminants from land surface to the aquifer, or (b) extends to near the land surface and lacks a sufficiently thick layer of impermeable material on the land or near the land surface to limit percolation water from transporting contaminants from the land surface to the aquifer.

Shallow Well: A well which is located in a shallow aquifer.

Should: “Should” means that the condition is a recommendation. If violations of the permit occur, the City will evaluate whether the producer implemented the recommendations contained in this permit that may have helped the producer to avoid the violation.

Significant Contributor of Pollution: To determine if a concentrated animal feeding operation meets this definition, the following factors are considered:

1. Size of feeding operation and amount of manure reaching waters of the state;
2. Location of the feeding operation in relation to waters of the state;
3. Means of conveyance of manure and process wastewater into waters of the state;
4. The slope, vegetation, rainfall and other factors affecting the likelihood or frequency of discharge of animal wastes and process wastewater into waters of the state.

Water of the State means all waters within the jurisdiction of this state, including all streams, lake, ponds, impounding reservoirs, marshes, watercourses, waterways, wells, springs, irrigation

systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, situated wholly or partly within or bordering upon the state.

Zone A: Special Flood Hazard Areas subject to inundation by the 100-year flood.

Zone X: These areas have been identified in the community flood insurance study as areas of moderate or minimal hazard from the principal source of flood in the area.

Animal Units

Animal species and number of a species required to equal 300, 1,000 and 2,000 animal units. Note that these figures relate to inventory rather than annual production. Other animal species equivalents which are not listed will be based on species' waste production.

**EQUIVALENT NUMBER OF
A SPECIES TO EQUAL:**

<u>ANIMAL SPECIES</u>	<u>300 AU</u>	<u>1,000 AU</u>	<u>2,000 AU</u>	<u>ANIMAL UNIT EQUIVALENT SPECIES/AU</u>
Feeder or Slaughter Cattle	300 hd	1,000 hd	2,000 hd	1.0
Mature Dairy Cattle	200 hd	700 hd	1,400 hd	1.4
Finisher Swine (over 55 lbs)	750 hd	2,500 hd	5,000 hd	0.4
Nursery Swine (less than 55 lbs)	3,000 hd	10,000 hd	20,000 hd	0.1
Farrow-to-Finish (sows)	80 hd	270 hd	540 hd	3.7
Swine Production Unit (Sows Breeding, Gestating & Farrowing)	640 hd	2,130 hd	4,260 hd	0.47
Horses	150 hd	500 hd	1,000 hd	2.0
Sheep	3,000 hd	10,000 hd	20,000 hd	0.1
Turkeys	16,500 hd	55,000 hd	110,000 hd	0.018
Laying Hens and Broilers (continuous overflow watering in facility)	30,000 hd	100,000 hd	200,000 hd	0.01
Laying Hens and Broilers (liquid handling system in confinement facility)	9,000 hd	30,000 hd	60,000 hd	0.033
Ducks	1,500 hd	5,000 hd	10,000 hd	0.2
Buffalo	200 hd	700 hd	1,400 hd	1.4

Classes of Concentrated Animal Feeding Operations

A Concentrated Animal Feeding Operation is defined as a lot, yard, corral, building or other area where animals have been, are, or will be stabled or confined for a total of 45 days or more during any 12-month period, and where crops, vegetation, forage growth, or post harvest residues are not sustained over any portion of the lot or facility. Two or more animal feeding operations under common ownership are single animal operation if they adjoin each other, or if they use a common area, or system for disposal of manure.

For the purpose of these regulations, Concentrated Animal Feeding Operations are divided into the following classes:

ANIMAL UNITS

Class A	2,000 or more
Class B	1,000 to 1,999
Class C	300 to 999
Class D	0 to 300(Potential water pollution hazard)
Class E	0 to 300(No pollution hazard)

Concentrated Animal Feeding Operation Permit Requirements

Owner of Class A, Class B, Class C, and Class D Concentrated Animal Feeding Operations are required to complete a permit application whenever any of the following occur:

1. A new Concentrated Animal Feeding Operation is proposed where one does not exist.
2. An expansion is proposed beyond what a current permit allows.
3. A cumulative expansion by 300 animal units, after date, of existing concentrated animal feeding operation that does not have a permit.
4. A change in ownership.
5. An existing concentrated animal feeding operation is to be restocked after being idle for five (5) or more years.
6. A signed complaint has been received by the City Zoning Administrator or South Dakota Department of Environment and Natural Resources and after inspection reveals that the Concentrated Animal Feeding Operation is in violation of City, County, or State regulations.

Concentrated Animal Feeding Operation Control Requirements

1. **No Significant Contribution of Pollution**

In general, no Concentrated Animal Feeding Operation shall be constructed, located, or operated so as to create a significant contribution of pollution.

2. State General Permit

Class A and B Concentrated Animal Feeding Operations shall obtain a State General Permit pertaining to the animal species of the Concentrated Animal Feeding Operation. A County permit may be approved conditioned on receiving a State permit.

Classes C and D Concentrated Animal Feeding Operations will be required to obtain a State General Permit if either of the following occur:

- a. If an earthen storage basin or lagoon is used for manure storage.
- b. The Board of Adjustment decides conditions require a State permit.

3. Nutrient Management Plan

Classes A, B, C, and D Concentrated Animal Feeding Operations shall submit a Nutrient Management Plan to the State. The applicant shall develop, maintain, and follow a nutrient management plan to ensure safe disposal of manure and protection of surface and ground water. The South Dakota Department of Environment & Natural Resources must approve the plan prior to land application of any wastes. Due to crop rotation, site changes, and other operational changes, the producer should update the plan annually to reflect the current operation and crops grown on the application sites. The applicant shall collect, store, and dispose of liquid and solid manure according to recognized practices of good agricultural management. The economic benefits derived from agricultural operations carried out at the land disposal site are secondary to the proper and safe disposal of the manure.

A generic nutrient management plan that the applicant may use in developing a nutrient management plan is available from the South Dakota Department of Environment & Natural Resources. The generic nutrient management plan is based on application of nitrogen. The applicant may use other plans, provided the alternate plan contains all the information necessary to determine compliance with conditions of this general permit. Nitrogen, in addition to that allowed in the nutrient management plan, may be applied up to the amounts as indicated by soil or crop nitrogen test results that are necessary to obtain the realistic crop yield.

The South Dakota Department of Environment & Natural Resources recommends and encourages producers to develop nutrient management plans for other nutrients such as phosphorous and potassium. Over application of these nutrients may lead to water quality problems in area lakes and streams and result in potential damage to the producer's land and crop.

The applicant must maintain records to show compliance with the plan.

The plan must comply with City Manure Application Setbacks.

Land spreading agreements shall be provided if applicant does not have minimum acreage to apply animal manure. Animal manure shall be applied within five miles of the Concentrated Animal Feeding Operation.

4. Manure Management and Operation Plan

Classes A, B, C, and D Concentrated Animal Feeding Operations shall submit a Manure Management and Operation Plan.

A. Plan must include:

1. The location and specifics of proposed animal manure facilities.
2. The operation procedures and maintenance of manure facilities.
3. Plans and specifications must be prepared or approved by a registered professional engineer, or a South Dakota licensed Natural Resource Conservation Service (NRCS) engineer. Waste treatment facilities will require inspection by an engineer and as-built plans to be submitted to the City Zoning Administrator.
4. Animal manure shall not be stored longer than two years.
5. Manure containment structures shall provide for a minimum design volume of 270 days of storage.
6. Producers shall keep records on manure applications on individual fields which document acceptable manure and nutrient management practices have been followed. These records shall include soils test results for surface two feet of soil, actual and projected crop yields, nutrient analysis of manure, and information about date, rate and method of manure applications for individual fields.
7. Manure transportation plan; manure transportation is limited to five miles from the place of origin.

B. As a condition of the permit, the Leola Planning and Zoning Commission may require the producer to participate in environmental training programs and become a certified livestock manager.

C. The Board of Adjustment may require manure to be injected or incorporated into the soil.

5. Management Plan for Fly and Odor Control

Classes A, B, C, and D Concentrated Animal Feeding Operations shall dispose of dead animals, manure and wastewater in such a manner as to control odors or flies. A management plan is required for submission of a permit. The Leola Planning and Zoning

Commission will review the need for control measures on a site specific basis, taking in consideration prevailing wind direction and topography. The following procedures to control flies and odors should be considered in a management control plan.

- A. Operational plans for manure collection, storage treatment and use must be kept updated and implemented.
- B. Methods to be utilized to dispose of dead animals should be included in the management plan.
- C. Plant trees and shrubs to reduce wind movement of odors away from buildings, manure storage ponds and/or lagoons.
- D. Provide adequate slope and drainage to remove surface water from pens and keep pen area dry so odor production is minimized.
- E. Store solid manure in containment areas having good drainage to minimize odor production.
- F. Remove manure from open pens as frequently as possible to minimize odor production.
- G. Consider use of covers on open storage systems for liquid manure systems to reduce odor production.
- H. Avoid spreading manure on weekends, holidays, and evenings during warm season when neighbors may be involved in outdoor recreation activities.
- I. Avoid spreading during calm and humid days, since these conditions restrict the dispersion and dilution of odors.
- J. Incorporation of manure must occur within 24 hours of open air spreading.

6. Required Setbacks (defined as radius) and Separation Distance for new Concentrated Animal Feeding Operations and those Expanding by 300 or More Animal Units after (date).

MINIMUMS

	<u>CLASS A</u>	<u>CLASS B</u>	<u>CLASS C</u>	<u>CLASS D & E</u>
Established Residences not including owners/operators	3,960 feet*	2,640 feet	2,640 feet	2,640 feet
Churches, Businesses and Commercially Zoned Areas	5,280 feet*	5,280 feet	2,640 feet	2,640 feet
Incorporated Municipality	3 miles	2 miles	5,280 feet	2,640 feet
Private Wells & Public Water Supplies other than the operator	2,640 feet	1,760 feet	1,320 feet	1,320 feet
Lakes and Streams classified as Fisheries as identified by the State	500 feet	500 feet	200 feet	200 feet
Federal, State & County Road ROW Housed	300 feet	300 feet	200 feet	200 feet
Federal, State & County Road ROW Open Lot	300 feet	300 feet	200 feet	200 feet
Township Road ROW Housed	150 feet	150 feet	150 feet	150 feet
Township Road ROW Open Lot	150 feet	150 feet	150 feet	150 feet
Designated 100 Year Floodplain	Prohibited	Prohibited	Prohibited	Prohibited

*plus 1,000 feet for 1,000 additional units

Proposals for new Concentrated Animal Feeding Operations, on a site-by-site basis, shall be set back from adjoining property lines as determined by the Leola Planning and Zoning Commission.

7. Exemptions from Separation Distance

1. If a Concentrated Animal Feeding Operation is closer than the separation distances provided in these regulations, the applicant can request a written waiver from the separation distance. The residence, business, church, school, municipality, or public use

area may waive the distance requirement. The waiver is recorded with the County Register of Deeds in order that any future owners can be informed.

2. Concentrated Animal Feeding Operation expansion of 300 animal units or more can apply to Leola Planning and Zoning Commission for a variance to the required setback and separation distance regulations.

8. New Residences

Anyone establishing a new residence must comply with the minimum setbacks as stated in Section 6, Established Residences, upon determining the class of the concentrated animal feeding operation where the new residence will be located.

The following uses are prohibited in Zone A:

1. New Concentrated Animal Feeding Operations after adoption of this ordinance.
2. Existing Concentrated Animal Feeding Operations will not be able to expand beyond a total of 300 animal units.
3. Earthen storage basins and lagoons.
4. Stockpiling of solid waste.

The following uses are prohibited in Zone B:

1. New and expansion of Class A and B Concentrated Animal Feeding Operations.
2. Earthen storage basins and lagoons.

The following uses are allowed in Zone B by Special Exception:

1. New Class D and expansion of existing Class D up to 999 animals units (Class C). The City of Leola may require soil borings to determine impermeable material between land surface and the aquifer.

Each application for a new or expanded Concentrated Animal Feeding Operation (CAFO) will be reviewed by the Leola Planning and Zoning Commission on a site specific basis. The Planning Commission reserves the right to increase the minimum required setbacks and separation distance on a site specific review, based on one or more of the following considerations.

- A. A concentration of CAFOs in the area exists or would occur which may pose an air or water quality concern.
- B. Due to topography and prevailing wind direction, additional setback and separation distance is appropriate to safeguard air or water quality.
- C. A Concentrated Animal Feeding Operation is in excess of 5,000 animal units.

9. Manure Application Setbacks

- A. The following manure application setbacks apply to all classes of Concentrated Animal Feeding Operations.

CITY MANURE APPLICATION SETBACKS

<u>CATEGORY</u>	<u>SURFACE OR IRRIGATION APPLIED</u>	<u>INCORPORATED OR INJECTED</u>
Lake, Rivers and Streams Classified as Fisheries from high water mark	1,000 feet	100 feet (lake) 50 feet (river & stream)
Streams and Lake classified as Drinking Water Supplies	1,000 feet	300 feet
Public Roads	25 feet (surface) from right-of-way 300 feet (irrigation)	10 feet from right-of-way
Area of 10 or more Residences	300 feet (surface) 1,000 feet (irrigation)	300 feet
Public Wells	1,000 feet	1,000 feet
Private Shallow Wells	1,000 feet	250 feet
A Residence other than the Operator	1,000 feet	300 feet
Natural or Manmade Drainage	500 feet	50 feet

- B. The Leola Planning and Zoning Commission may require liquid manure to be incorporated or injected in order to minimize air and water quality impacts.
- C. Requests for application of liquid manure by means of irrigation will be reviewed by the Planning and Zoning Commission on a site-specific basis. Impact on air and water quality will be taking into consideration.

10. Standards for Special Exceptions

- A. The Leola Planning and Zoning Commission may request information relating to a Concentrated Animal Feeding Operation not contained in these regulations.
- B. The Leola Planning and Zoning Commission may impose, in addition to the standards and requirements set forth in these regulation, additional conditions which the Board of Adjustment considers necessary to protect the public health, safety and welfare.

- C. Special Exceptions shall be in effect only as long as sufficient land specified for spreading purposes is available for such purposes and other provisions of the permit are being adhered to.
- D. When considering an application, the Leola Planning and Zoning Commission will take into consideration current and past violations relating to Concentrated Animal Feeding Operations that the applicant has an interest in.
- E. Permit applicants will be required to file a letter of assurances as required by the Board of Adjustment. The letter of assurances will be prepared by the Zoning Administrator and signed by both the applicant and the zoning officer.
- F. A neighboring township that adjoins between two counties will follow the regulations of the county that is most restrictive.
- G. An applicant's record on environmental issues, employment, and labor compliance must be submitted with the application. If the City Planning and Zoning Commission finds the person is a "bad actor" then the applicant will be denied a permit.

11. Facility Road Maintenance Agreements

All facilities within the City of Leola that cause excessive maintenance of County or Township roads shall be required to have a written agreement with the Township Board or County Highway Superintendent, stating acceptance responsibility for all additional costs incurred by the facility in maintenance of said road. Excessive maintenance shall be defined as: All work and material costs incurred over and above the average cost of maintaining that specific type of road within that local governmental units jurisdiction. The terms of said agreement shall be determined prior to the issuance of a conditional use permit.

12. Information Required for Class A and B Concentrated Animal Feeding Operational Permit.

- A. Owner's name, address and telephone numbers.
- B. Legal descriptions of site and site plan.
- C. Number and type of animals.
- D. Nutrient management plan.
- E. Manure management and operation plan.
- F. Management plan for fly and odor control.

- G. Information on ability to meet designated setback requirements including site plan to scale.
- H. General permit from South Dakota Department of Environment & Natural Resources if available for animal species.
- I. Review of plans and specifications and nutrient management plan by the South Dakota Department of Environment & Natural Resources.
- J. Information on soils, shallow aquifers, designated wellhead protection areas, and 100-year floodplain designation.
- K. Notification of whomever maintains the access road (township, county and state).
- L. Notification of public water supply officials.
- M. Any other information as contained in the application and requested by the City Zoning Administrator.
- N. Written notification to landowners or tenants living within the setback area to the proposed facility, and publication of notice in official City newspaper at least once.
- O. A full written plan must be submitted at least four weeks in advance of the public hearing in the city courthouse or other location, available for public inspection.
- P. A copy of the general permit application must be submitted to the City, at the time it is submitted to State Department of Environment and Natural Resources.
- Q. A list of owner's names contracted to do manure land spreading and a legal description of the land must be submitted to the City.

13. Information Required for Class C and D Concentrated Animal Feeding Operational Permit.

- A. Owner's name, address and telephone number.
- B. Legal descriptions of site and site plan.
- C. Number and type of animals.
- D. Nutrient management plan.
- E. Manure management and operation plan.
- F. Management plan for fly and odor control.

- G. Information on ability to meet designated setback requirements, including site plan to scale.
- H. Review of plans and specifications and nutrient management plan by the South Dakota Department of Environment & Natural Resources if using lagoon or earthen storage basin.
- I. Information on soils, shallow aquifers, designated wellhead protection areas, and 100-year floodplain designation.
- J. Notification of whomever maintains the access road (township, county and state).
- K. Notification of public water supply officials.
- L. Any other information as contained in the application and requested by the City Zoning Administrator.